

Remarks

Claims 18, 34-36, 47, 58, and 94-113 were pending in the subject application. Applicants gratefully acknowledge the Examiner's withdrawal of the enablement rejection under 35 USC §112, first paragraph, and his indication that claims 95-104 are objected to but would be allowable if rewritten in independent form to include the limitations of any base and intervening claims. Submitted herewith is a Request for Continued Examination (RCE) under 37 CFR §1.114 for the subject application. By this Amendment, claims 18, 34, 36, 47, and 58 have been amended, claims 94 and 95 have been cancelled, and new claims 114-131 have been added. Support for the new claims and amendments can be found throughout the subject specification and in the claims as originally filed. Entry and consideration of the amendments presented herein is respectfully requested. Accordingly, claims 18, 34-36, 47, 58, and 96-131 are currently before the Examiner for consideration. Favorable consideration of the pending claims is respectfully requested.

Claims 18, 34, 36, 47, 58, 94, and 105-113 are rejected under 35 USC §112, first paragraph, as lacking sufficient written description. The Examiner asserts that the specification does not disclose a representative number of sequences to support claims to a broad genus of plant aromatic amino acid decarboxylases. Applicants respectfully assert that the specification does provide written description for the claimed invention. The subject specification provides a representative number of sequences to support the claimed genus of plant aromatic amino acid decarboxylases. However, in order to expedite prosecution of the subject application to completion, Applicants have amended the independent claims to incorporate the elements of claim 95, which is not included under this rejection. Accordingly, reconsideration and withdrawal of the rejection under 35 USC §112, first paragraph, is respectfully requested.

Claims 18, 34-36, 105, and 106 are rejected under 35 USC §102(b) as anticipated by Maldonado-Mendoza *et al.* (1996). In addition, claims 18, 34-36, 47, 58, and 105-113 are rejected under 35 USC §103(a) as obvious over Maldonado-Mendoza *et al.* (1996). The Maldonado-Mendoza *et al.* (1996) reference is cited by the Examiner as teaching a plant aromatic amino acid decarboxylase (TyDC5 from opium poppy) that exhibits decarboxylase activity on phenylalanine and other aromatic amino acids. Applicants respectfully assert that the Maldonado-Mendoza *et al.*

reference does not teach or suggest Applicants' claimed invention. Applicants note that the TyDC5 protein has a specific activity of only 1.6% for phenylalanine when compared to tyrosine. This is essentially background level, or barely above it. Applicants respectfully submit that the data in the Maldonado-Mendoza *et al.* reference indicate that the TyDC5 enzyme does not use phenylalanine as a substrate under normal circumstances. *In vitro* assays are conducted with large excesses of substrate that are not physiologically relevant. Thus, the Maldonado-Mendoza *et al.* reference does not teach or suggest the claimed invention. In addition, as noted herein, Applicants have amended independent claims 18, 34, 36, 47, and 58 to incorporate the elements of claim 95, which is not included under these rejections. The Examiner has indicated in the instant Office Action that claim 95 would be allowable if rewritten in independent form. Accordingly, Applicants respectfully submit that the rejections are rendered moot in view of the amendments presented herein. Accordingly, reconsideration and withdrawal of the rejections under 35 USC §102(b) and §103(a) is respectfully requested.

It should be understood that the amendments presented herein have been made solely to expedite prosecution of the subject application to completion and should not be construed as an indication of Applicants' agreement with or acquiescence in the Examiner's position.

In view of the foregoing remarks and amendments to the claims, Applicants believe that the currently pending claims are in condition for allowance, and such action is respectfully requested.

The Commissioner is hereby authorized to charge any fees under 37 CFR §§1.16 or 1.17 as required by this paper to Deposit Account 19-0065.

Applicants invite the Examiner to call the undersigned if clarification is needed on any of this response, or if the Examiner believes a telephonic interview would expedite the prosecution of the subject application to completion.

Respectfully submitted,



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Attachment: Request for Continued Examination